

Innovative Supply Chain Management in the Amazon Basin.

Despite having rich and plentiful natural resources, community based agro-industries in the Amazon Basin face obstacles in their efforts to market products and engage in sustainable resource management. In terms of commercialization, these producers often have limited organizational capacity, as well as limited access to technologies needed to tap into the larger markets. There is a critical need to bridge the gap these agro-industrialists face as they try to diversify their production, to gain information on market demand & quality standards and to establish relationships with corporations looking for local sourcing agents.

Poemar

Between 2000 and 2002 the Inter-American Foundation committed US \$262,208 to Poemar. Additional inputs from Poemar and its affiliated University totaled US\$186,000. Daimler Chrysler's contribution exceeds US\$1 million in facilities, equipment and funds.

*The scope of Poemar's activities goes beyond IAF funded projects.

POEMAR, a non-profit organization located in the state of Pará, works with these Amazonian communities to bridge this gap. Specifically, POEMAR provides training in all aspects of product development with a focus on low cost technologies that add value. In addition, POEMAR works with these producers to establish vital market links with important corporate buyers. POEMAR provides all of this support in a way that ensures these local agro-industrialists preserve their natural environment for future generations.

POEMAR and the POEMA System.

POEMAR is part of the larger "POEMA system" within the Environmental Center at the Federal University of Pará. POEMAR capitalizes on the university's laboratories to study regional natural products, as well as develop technologies for processing and quality control. In addition to the non-profit organization, the POEMA system includes POEMATEC, a business focused on marketing agro-industrialists' products while assuring quality and quantity are consistent with market demand. Recently, POEMACOOOP, a cooperative of small producers and specialized technicians have come together to address issues of market access. Additionally, the cooperative purchases inputs in bulk for its members to allow the small producers to benefit from the associated economies of scale.

In 1998, POEMAR in partnership with the Biotrade Initiative of UNCTAD and a consortium of private actors, established the Bolsa Amazônia Program. This program supports sustainable community based agro-industries in the Amazon. Specifically, the Bolsa Amazonia has created an efficient network among these small producers and local, national and international businesses. All members of the Bolsa Amazonia are committed to environmental and social responsibility vis a vis the sustainable use of the environment.

Coconut Fiber Project in Partnership with Daimler-Chrysler.

POEMAR's competitive advantage is its ability to establish market relationships between different actors. An example is the link POEMAR has established between buyers and suppliers in the coconut fiber industry in Pará. POEMAR approached Daimler-Chrysler (at the time Daimler-Benz AG) and its Brazilian subsidiary, Mercedes-Benz do Brasil in São Paulo to conduct research on substituting synthetic inputs with natural fibers for interior car parts. In 1992, Daimler-Chrysler agreed to make an initial investment of US\$1.4 million to research viable natural fiber products and the role local communities could play as suppliers for these products. The result of three years of research was a pilot project to produce headrests and other interior car parts in the community of Praia Grande. Initially the manufacturing was completed manually. Eventually Daimler-Chrysler donated equipment to allow for more efficient processing of fibers. Additional investments in the project were then financed by Amazonian Bank BASA. POEMAR trained community members in technology, administration and marketing. Additionally, POEMAR trained these local agro-industrialists in innovative agro-forestry practices resulting in increased coconut production from 9 to 40 coconuts per tree.

There were two major challenges identified in the pilot: transporting the car parts from the remote community of Pará to São Paulo and meeting production deadlines that were not customary in rural community production. With help from POEMAR, these obstacles were resolved and in March 2001 the first fiber processing plant was inaugurated. POEMATEC then undertook management of the plant. Financing for the plant came from the government of the State of Pará, the municipal government of Ananindeua, the Amazonian Bank, Daimler-Chrysler, and DEG – the German Investment and Development Company. Specifically, Daimler-Chrysler's financed US\$4 million for supply of imported machinery, and provided training in the use of the equipment.

Today, the plant has a production capacity of 80,000 tons/month. A total of 25% of its production is dedicated to demand for interior car parts at Daimler-Chrysler. The plant is quickly expanding to meet new client demand in the automotive industry from General Motors and Honda. Additionally, the plant is adding additional product lines like gardening pots and mattresses.

As easy as it is to get lost in the cutting edge plant and technological innovations, the real success story is told from the benefits to the rural community organizations supplying the coconut fiber to POEMATEC. Eight districts in Pará now supply coconut fiber to POEMATEC. This translates to approximately 4,000 new jobs created in the coconut fiber production including agricultural producers, processing plant workers, and POEMATEC plant workers.

The project also has measurable benefits to Daimler-Chrysler's business. The company is able to meet its local content requirements by sourcing its interior car parts from the coconut fiber plant. Also, the company is able to ensure that its vehicle production meets the high environment and recycling standards set at home in Germany. Finally,

sourcing these parts is as economically viable, if not more so, than their synthetic counterparts.

Consolidating Agro-Extractive Industries.

In order to expand and diversify the focus of the established partnership between POEMAR and Daimler-Chrysler and to apply lessons learned to a new context, the IAF made a grant to POEMAR to consolidate three communities in Pará engaged in the production of fish, dried fruit and banana processing. These communities work with the Bolsa Amazônia Program to improve market penetration through more appropriate quality and quantity as well as through adding value to their production.

Artesenal Fisherman. The Association of Artesanal Fisherman (ASPAR) of Porto de Moz was established to improve local fishery resource management. Specifically the Association is improving issues related to managing product from catch to market. Today, a typical fisherman's yield is not optimized due to product lost in the transport to market. The IAF is financing an ice making facility to reduce fish losses and diminish ice costs by manufacturing rather than buying ice. Additionally, the Association has also constructed seven fishing boats for use by its members. Currently, members rely on canoes which are more time consuming for transportation.

Agro-Extractive Small Producers in Camurituba. POEMAR works with the Agroindustrial Society Camurituba-Beira (SOAGRO) to consolidate operations of its fruit-drying factory. IAF funds were used to purchase new drying equipment and packaging materials that allow the factory to add value and reduce costs. Like their artesanal fisherman counterparts, these small banana producers suffered product loss in the transportation process. As a result of the project, these producers are now processing bananas to make banana flour, thus driving down their loss rate and increasing their profit margin through adding value to the product. Consider that the price of one kilo of banana flour costs approximately US\$1.60, while a 20 kilo bunch of bananas is sold for approximately half that price. POEMAR has joined banana producers with similar programs in four municipalities of Pará to jointly market their product while assuring quality and consistency of the banana flour product.

As a result of the success of this project, the community of Cumurituba is now diversifying and processing coconut for dried coconut flakes. POEMAR has taken this project one step further by linking up the communities that process coconut fiber for automobile parts to supply Camurituba with coconuts for their value-added processing in the dried fruit factory.

Novo Paraíso. Under the IAF grant, POEMAR assists the Resident and Small Holder's Association of Grotão dos Caboclos of Novo Paraíso (ACROCANP) to consolidate its fruit pulp and dried fruit processing plant activities. The local community has significant supplies of banana and is now working with POEMAR to produce banana flour. POEMAR is also helping ACROCANP to establish relationships with buyers in Miami with high demand for pre-dried frozen bananas.

Lessons Learned:

- Corporate self-interest can be a powerful motivator in establishing sustainable, successful CSR program. Daimler Chrysler has tied many business objectives to this program which is one of the most successful economic development programs in the region;
- Innovative commercial relationships can be mutually beneficial for a company and local communities, while also adhering to environmentally sound principles of sustainable development.

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